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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/574,338

05/08/2006

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F-9042

8938

28107 7590 09/11/2009
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EXAMINER

XU, XIAOYUN

ART UNIT

PAPER NUMBER

1797

MAIL DATE

DELIVERY MODE

09/11/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/574,338	Applicant(s) EHRET ET AL.	
	Examiner ROBERT XU	Art Unit 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 June 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 17-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

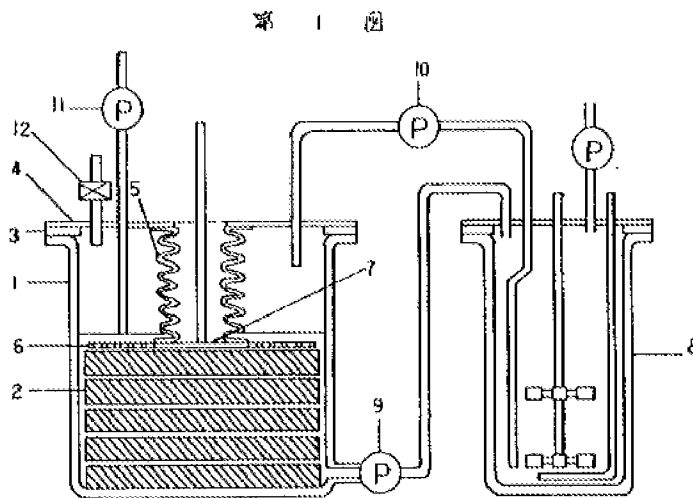
1. The amendment filed on 06/19/2009 has been entered and fully considered. Claims 17-33 are pending, of which Claim 17 is amended.

Response to Amendment

2. In response to amendment, the examiner withdraws rejection under 35 U.S.C. 112, 1st paragraph, and maintains rejection over the prior art established in the previous Office action.

Claim Rejections – 35 USC § 102

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. **Claims 17 and 25** are rejected under 35 U.S.C. 102(b) as being anticipated by Seisakusho et al. (JP 63 036783) (Seisakusho).



In regard to Claim 17, Seisakusho teaches a method of providing a body of liquid having an exposed upper surface in a receptacle (1) including a reaction chamber and allowing for monitoring of conditions in the liquid (see Figure 1). The method comprises

inserting a member (4-7) into the receptacle (1), the member comprising a head portion (6-7) forming an upper wall of the reaction chamber (see Figure 1),

supplying the liquid to the receptacle by causing the liquid to drip or flow into the receptacle from a conduit (10) at a location above the surface of the body of the liquid (see Figure 1),

providing a conduit (9) communicating with the body of the liquid from outside the receptacle (see Figure 1),

applying suctions to the conduit (9) to withdraw the liquid from the body of the liquid (see Figure 1), and

regulating height of the exposed surface by regulating the supplying and withdrawing of the liquid (see Figure 1).

In regard to Claim 25, Seisakusho discloses an apparatus comprising a receptacle (1) including a reaction chamber and means for supplying the receptacle with body of liquid having an exposed upper surface, the apparatuses being adapted for monitoring of condition, the means for supplying comprising

a member (4-7) for insertion into the receptacle and comprising, at lower extremity, a head portion for forming an upper wall (6-7) of the reaction chamber (see Figure 1),

a first conduit (9) for communicating between outside the receptacle and the body of liquid by suctioning liquid away from the body of liquid (see Figure 1), and

a second conduit (10) for communicating between outside the receptacle and the interior of the receptacle for supplying liquid to the receptacle (see Figure 1), the second conduit having a lower extremity above a predetermined upper level of the body of liquid whereby liquid supplied through the second conduit drips or flows into the body of liquid from above the body of liquid (see Figure 1).

Claim Rejections - 35 USC § 103

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. **Claims 18-24, 26-31 and 33** are rejected under 35 U.S.C. 103(a) as being unpatentable over Seisakusho.

In regard to Claims 18 and 26, Seisakusho does not teach that both conduits comprise channels formed through the member. Seisakusho teaches that the liquid supplying conduit (10) comprises channel formed through the member (4) (see Figure 1). Whether the channel of liquid withdrawing conduit (9) formed through the member or not is merely an obvious matter of design choice and would not have modified the operation of the device. Therefore, it would have been obvious to one of ordinary skill in the art to have the channel of liquid withdrawing conduit go through the member (4-7) as long as the entrance of the channel is below the level of the liquid body as taught by Seisakusho in Figure 1.

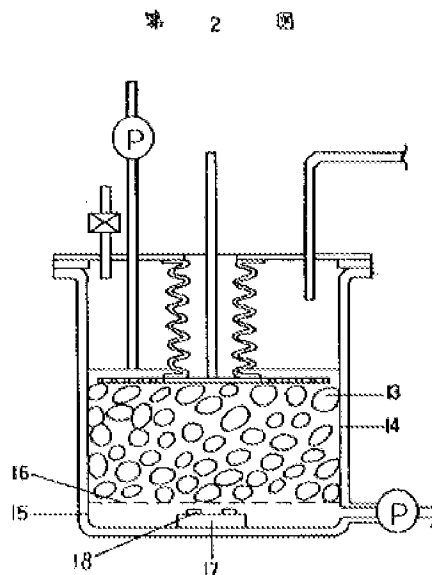
In regard to Claims 19 and 31, Seisakusho teaches a third channel (12) through the member (4) (see Figure 1), and applying suction to the third channel to withdraw liquid from the body of the liquid to assist in the regulation of the height of the exposed surface.

In regard to Claim 20, Seisakusho teaches that the reaction chamber contains living cells, cell components, DNA, RNA, and chemical/biochemical reactions are conducted there (see abstract).

In regard to Claims 21 and 22, it seems obvious that the supplying and withdrawing of the liquid in Seisakusho's device can be continuous or discontinuous (see Figure 1).

In regard to Claim 23, Seisakusho teaches that the exposed surface is above the location of the reaction chamber wall (see figure 1). It seems obvious that when lifting the member in Seisakusho's device, a portion of the body of the liquid which had been above the reaction chamber wall will mix into the reaction chamber liquid (see Figure 1).

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In regard to Claim 24, Seisakusho teaches that the device has a membrane (16) in the reaction chamber to subdivide the reaction chamber into a portion into which the liquid being supplied directly flows (14) and a portion into which the liquid being supplied does not directly flow (15) (see Figure 2).

In regard to Claim 27, Seisakusho discloses a carrier portion from which the head portion depends (see Figure 1). The second channel extends through the carrier portion of the member thereby to communicate with the reaction chamber (see Figure 1)

In regard to Claim 28, Seisakusho discloses that the receptacle comprises a bottom and the receptacle bottom forms a bottom of the reaction chamber (see Figure 1). Seisakusho does not disclose that the first conduit comprises a channel through the bottom of the receptacle. Seisakusho discloses that the first conduit (9) comprises a channel through the lower side closing to the bottom of the receptacle (see Figure 1). Whether the channel of liquid withdrawing conduit (9) through the bottom of the reaction chamber or through side closing to the bottom of the chamber is merely an obvious matter of design choice and would not have modified the operation of the device. Therefore, it would have been obvious to one of ordinary skill in the art to have the

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channel of liquid withdrawing conduit go through the bottom as long as the entrance of the channel is below the level of the liquid body as taught by Seisakusho in Figure 1.

In regard to Claim 29, Seisakusho discloses that the carrier portion comprises a shaft portion (5) from which the head portion depends and, thereabove, a first enlarged portion (4) of a greater lateral dimension than the shaft in a first lateral direction and the second channel (10) passes through the first enlarged portion (4) (see Figure 1). As has been discussed in regard to Claims 18 and 26, it would have been obvious for ordinary skill in the art to pass the first channel through the shaft portion.

In regard to Claim 30, Seisakusho does not disclose that the second conduit (for supplying liquid) comprises a channel through a side wall of the receptacle and being adjacent the member. Seisakusho discloses that the second conduit (10 for supplying liquid) comprises a channel through the member (4) (see Figure 1). Whether the channel of liquid supplying conduit (10) through a side wall of the receptacle or through the member above the surface is merely an obvious matter of design choice and would not have modified the operation of the device. Therefore, it would have been obvious to one of ordinary skill in the art to have the channel of liquid supplying conduit go through the side wall of the receptacle as long as the entrance of the channel is above the level of the liquid body as taught by Seisakusho in Figure 1.

In regard to Claim 31, Seisakusho discloses that the carrier portion further comprises a second enlarged portion (6) of greater lateral dimension than the shaft in a second lateral direction, and the apparatus further comprising a third channel (12), the third channel (12) passing through the second enlarged portion (4) for communicating with and suctioning away liquid from the body of liquid at a height of the body of liquid in the receptacle greater than a height of the body of liquid in the receptacle at which the first conduit first communicates with the body of liquid thereby to prevent the body of liquid from overflowing the receptacle.

In regard to Claim 33, Seisakusho discloses that a sensor (11) in the reaction chamber for monitoring conditions in the liquid (see Figure 1)

7. **Claim 32** is rejected under 35 U.S.C. 103(a) as being unpatentable over Seisakusho in view of Lin (US Patent 6,017,483).

In regard to Claim 32, Seisakusho does not disclose one of hydrophilic or hydrophobic coatings on surface of the apparatus. However, having one of hydrophilic or hydrophobic coatings on surface of the apparatus is known in the art. For example, Lin discloses having hydrophilic coating on an interior surface of a receptacle to prevent sample from sticking on the wall (see abstract, Col. 1, lines 32-50). At time of the invention it would have been obvious to one of ordinary skill in the art to have one of hydrophilic or hydrophobic coatings on the surface of the apparatus so that the chemicals in the reaction chamber would not stick on the wall.

Response to Arguments

8. Applicant's arguments filed on 06/19/2009 have been fully considered but they are not persuasive.

In regard to the rejection of Claims 17 and 25 under 35 U.S.C. § 102, applicant argues that "the device of Seisakusho would not function if conduit [9] passed through member [4]. Seisakusho requires the liquid withdrawing conduit [9] on the bottom." Claim 17 recites "providing a conduit communicating with said body of the liquid from outside the receptacle, applying suction to the conduit thereby to withdraw thereby through liquid from said body of the liquid,". Claim 25 recites "a first conduit for communicating between outside the receptacle and the body of liquid for suctioning liquid away from the body of liquid". Neither Claims 17 nor 25 recites the conduit passing through the member. Therefore, Seisakusho discloses all of the elements arranged as recited in the claims.

In regard to Claim rejections under 35 U.S.C. § 103, applicant argues that "the Office has not pointed to any motivation for relocating the liquid withdrawing conduit [9] within the member [4]". The purpose of conduit [9] is the same as the first conduit for withdrawing the body of the liquid from the receptacle. Seisakusho does not disclose the further limitation of the liquid withdrawing conduit passing through the member as recited in the dependent claims 18, 26 and 28. The rationale to modify or combine the prior art does not have to be expressly stated in the prior art; the rationale may be expressly or impliedly contained in the prior art or it may be reasoned from knowledge

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generally available to one of ordinary skill in the art, established scientific principles, or legal precedent established by prior case law. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In that regard, both members in Seisakusho and in the instant application are movable. A liquid withdrawing conduit passing through a receptacle wall or pass through a member does not affect the operation of the method, the final result is the same -- withdrawing the body of liquid outside the receptacle. There is no reason the device of Seisakusho would not function if conduit [9] passed through member [4]. As a matter of fact, many water heaters in a family house have a withdrawing conduit through the top center member of the heater. Therefore, at the time of the invention, one of ordinary skill in the art would let the liquid withdrawing conduit passing through the member to withdraw the body of liquid from the receptacle according to a design of a water heater.

Conclusion

9. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT XU whose telephone number is (571)270-5560. The examiner can normally be reached on Mon-Thur 7:30am-5:00pm, Fri 7:30am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vickie Kim can be reached on (571)272-0579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

9/9/2009

/Yelena G. Gakh/
Primary Examiner, Art Unit 1797

RX